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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,992	10/21/2003	Yoshiyuki Abe	501.43182X00	6676

20457 7590 06/01/2005

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EXAMINER

SCHILLINGER, LAURA M

ART UNIT PAPER NUMBER

2813

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,992

Applicant(s)

ABE, YOSHIYUKI

Examiner

Laura M. Schillinger

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/21/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15. Such a translation would overcome the 102(b) rejection, not the 102 (a).

### ***Election/Restrictions***

Claims 14-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected claims, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/14/05.

Applicant's election with traverse of claims 1-13 in the reply filed on 3/14/05 is acknowledged. The traversal is on the ground(s) that the species are not distinct as explained, that the examination of claims would not be burdensome. This is not found persuasive because the claims are distinct as explained in the original restriction requirement (claim 21 is a separate and distinct species from that of species 1 because it does not require grinding and does not have a plurality of semiconductor elements) and moreover would constitute a burdensome search.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

and

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 11-13 are rejected under 35 U.S.C. 102(b) and (a) as being anticipated by Applicant's Admitted Prior Art (APA) (Takahiro 2002-26039).

Citations made below refer generally to Applicant's own specification (APA) ; some citations refer to the computer generated English translation if indicated- it is important to note that some of the computer generated translations of certain layers are titled differently from the APA but are referring to the same layer, further citations refer to the English Abstract provided by the Applicant in the IDS- however all 3 locations are translations of the same document

1 . (original) A method of fabricating a semiconductor device, comprising the steps of:

- (a) providing a wafer having a plurality of semiconductor elements formed thereon ([0003] See English Translation provided by Examiner from JPOABS)
- (b) affixing a protective tape to a first face of the wafer (page 1) ;
- (c) grinding a second face of the wafer opposite to the first face (APA, page 1);
- (d) affixing a die bonding film to the second face of the wafer (APA, page 1);
- (e) affixing a dicing tape over the die bonding film on the second face of the wafer (Abs., line: 8);

(f) peeling off the protective tape from the first face of the wafer (APA, page 2); and  
(g) dicing the wafer (APA, page 2).

2. (original) The method according to claim 1,  
wherein the die bonding film contains a thermoplastic resin material ([0065] See English Translation provided by Examiner from JPOABS).

3. (original) The method according to claim 1 ,  
wherein the first face of the wafer is a face on which the plural semiconductor elements are formed ([0003] See English Translation provided by Examiner from JPOABS).

4. (original) The method according to claim 1 ,  
wherein the die bonding film functions as an adhesive layer at the time of die-bonding chips obtained by dicing the wafer ([0065] See English Translation provided by Examiner from JPOABS).

5. (original) The method according to claim 1, further comprising a step of  
heating the die bonding film after the step (e) and before the step (f) ([0028 and 0032] See English Translation provided by Examiner from JPOABS).

6. (original) The method according to claim 1, further comprising a step of  
heating the die bonding film after the step (f) and before the step (g) ([0028 and 0032] See English Translation provided by Examiner from JPOABS).

7. (original) The method according to claim 1, further comprising, after the step (e) and before the step (f), a step of heating the die bonding film for improving the adherence between the die bonding film and the wafer ([0028 and 0033] See English Translation provided by Examiner from JPOABS).

8. (original) The method according to claim 1, further comprising, after the step (f) and before the step (g), a step of heating the die bonding film for improving the adherence between the die bonding film and the wafer ([0028 and 0033] See English Translation provided by Examiner from JPOABS).

11. (original) The method according to claim 1, wherein, in the step (e), the dicing tape is held by a holding means disposed around the wafer (Abs., lines: 11-12), and wherein, in the step (g), the wafer affixed to the dicing tape held by the holding means is diced (Abs., lines: 11-12).

12. (original) The method according to claim 1, wherein, in the step (c), the wafer is ground to a thickness of not larger than 200  $\mu\text{m}$  ([0036] See English Translation provided by Examiner from JPOABS).

13. (original) The method according to claim 1, wherein the step (d) comprises the steps of:

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(d1) affixing a laminate of the die bonding film and a separator film to the second face of the wafer in such a manner that the die bonding film faces inside (Abs., lines: 2-7);

(d2) peeling off the separator film (Abs., lines: 2-7) ; and

(d3) cutting the die bonding film along an outer periphery of the wafer ([0089] See English Translation provided by Examiner from JPOABS). ..

***Allowable Subject Matter***

Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In reference to claim 9, Takahiro fails to teach nor suggest the following limitations in combination with claim 1:

heating the die bonding film to a first temperature after the step (d) and before the step (e); and

heating the die bonding film to a second temperature higher than the first temperature after the step (e) and before the step (f).

In reference to claim 10, Takahiro fails to teach nor suggest the following limitations in combination with claim 1:

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heating the die bonding film to a first temperature after the step (d) and

before the step (e); and

heating the die bonding film to a second temperature higher than the first temperature after the step (f) and before the step (g).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura M Schillinger  
Primary Examiner  
Art Unit 2813

5/25/05